

*Accent Stereotypes and their Accompanying Effect on Persuasion*

**An Honors Thesis (HONR 499)**

**by**

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## Abstract

Accents in the United States are associated with different stereotypes, and these stereotypes can affect the way an individual perceives not only a speaker, but their message. The current study aims to analyze the effects of an individual's accent on persuasion by examining perceptions of the personality characteristics of a Southern- and Midwestern-accented speaker, and whether those perceptions influence the persuasiveness of the speaker's message. Participants listened to a persuasive message regarding a fictitious backpack that is spoken in either a Southern American or a Midwestern American accent. The personality characteristics that were studied include warmth and competence. In order to assess persuasion, participants were asked to rate the quality of the backpack, as well as answer questions regarding intent to purchase. I hypothesized that the Southern speaker will be rated as warmer than the Midwestern speaker, while the Midwestern speaker will be rated as more competent than the Southern speaker. Also, I hypothesized that speaker accent will ultimately impact persuasion. If competence is a more important factor in persuasion, then the Midwestern accent will be more persuasive. If warmth is a more important factor in persuasion, then the Southern accent will be more persuasive. Results indicate that the Midwestern speaker is rated higher in competence than the Southern speaker. There were no differences found regarding warmth, and accent was not found to affect persuasion.

## Acknowledgments

I would like to thank Dr. Andrew Luttrell for advising me in my thesis. Without his help, I would have not been able to complete my thesis project, and his guidance has been a vital component to not only the creation of the thesis, but also my growth and development as both a student and academic. Additionally, I would like to thank Dr. Holtgraves for all of his knowledge and assistance. This thesis was made possible through his direction. Lastly, I would like to thank my PSYS 499 class for all of their feedback, as well as my friends for always being willing to listen to and encourage me.

## Process Analysis Statement

On a practical level, the research process has been an incredibly fulfilling for me. When I started, I spent hours reading and annotating journal articles and tying everything together into a coherent idea that, while backed by research in similar areas, was unique and interesting. Then, I had to create the survey and the IRB application, which were both daunting tasks. In regard to the survey, I had the opportunity to record audio and embed it into Qualtrics, in addition to both creating and finding current survey questions that would fit well with my study. While the IRB application took a lot of effort to make sure that everything was in the correct place, it felt amazing when I got the approval to continue with my study. Lastly, I was able to dive deeper into the world of statistics and analyze results, as well as discuss potential reasons for these findings and present all this information at a conference.

In general, this thesis has provided me with not only the necessary information that I will need to continue my studies in a graduate program, but also impactful life skills that have helped shape who I am. Originally, I had been planning to work on a completely different topic from what my final project has become. During the second semester of my junior year, I had planned to work with an advisor on a topic relating to disability and sexuality. Unfortunately, the professor was unable to continue with the project, and so I had to find a new advisor at the start of my senior year. This ultimately led to me also deciding on a new topic. While I would still consider this the most challenging aspect of my thesis process, it has also been incredibly beneficial because it guided me to a new topic of interest.

After deliberating, my advisor and I found a new idea for research. Ultimately, I wanted to study the effects of accent stereotypes on persuasion. Although this topic was completely different from my prior research interests, I felt personally driven to take a closer look at how

people view accents in the United States. As someone who was born with a Southern accent, and whose parents have Southern accents, I wanted to investigate the stereotypes that may be harmful and beneficial to different speakers. Unfortunately, there is not a lot of research on accent stereotypes in the United States, and I had a lot of trouble when writing my literature review. This challenged me because I had to become a more careful observer of research. I had to quickly learn how to search for hard-to-find topics, which I believe has become an important skill for me. On a more personal level, I had to learn how to ask for help. This has always been difficult for me, because I am very independent. I had thought that research was more of a solo process, and for that reason I assumed that it would be weak to ask for help. I slowly began to learn that it is okay to ask for help, and while I would not say that it became a lot easier to find research to support my study, it did help tremendously.

One unexpected challenge that occurred during my thesis process arose when I began collecting survey responses. Despite my advisor sending out the survey three times, I did not get nearly as many participants as I had hoped. Although I got enough to complete my analysis, I believe that I may have had a better chance to find statistically significant differences if I had more participants. While the number of students who completed my survey was out of my control, it was certainly unexpected. The moment I realized that I would not be getting a lot of participants was also the moment that I came to understand that I do not have control over everything. When creating the project, I had worked diligently to assure that everything was done correctly. I had run through multiple rounds of audio recordings with my speaker in order to get the best accents and make each condition have a product that was identical in regard to word choice and time. I had gone through multiple drafts of my survey, and I wrote and rewrote part of my IRB application to make everything as clear as possible. Despite all of this, I was

unable to control an integral part of research when it came to collecting responses. While this was most certainly challenging, it allowed me to view some of the problems that can arise from research and, as someone who wants to continue doing research in the future, I am glad that I had such an amazing support system when encountering this issue for the first time.

While these past two semesters have been full of obstacles regarding my final thesis project, it was also an incredible experience. This thesis has allowed me to apply the knowledge that I have learned at Ball State to a practical goal. Although I struggled to find information during the literature review, it was rewarding when I found sources that demonstrated the importance of my topic. Also, after I finished collecting responses, I had the opportunity to analyze them and understand the results. While I have taken research classes in the past, I found meaning in this thesis that went beyond that of a typical class project because it related more to my personal interests. Although I did not find the results that I was expecting in most cases, I learned that I love to do research, and I now feel much more confident in my career path. I did not find support for a relationship between accents and persuasion, and I will admit that I was worried at first that I had done something wrong. Encountering these unexpected results also helped me realize that I want to continue research. Instead of feeling hopeless, I was curious to learn possible reasons for the results. I still felt passionate about my study and the research that I was doing. Even now, I am incredibly proud of the work that I have put into this project, and I am grateful for both the insights and the challenges that I have encountered along the way.

## Accent Stereotypes and their Accompanying Effect on Persuasion

An accent can be linguistically defined as “a distinctive way of speaking associated with a particular group of people, typically based on differences in phonology or intonation across geographic regions or social groups” (Deprez-Sims & Morris, 2010, p. 418). Different accents exist across the globe. Even within a country, one can find a variety of diverse accents. In the United States alone exist at least nine unique sections of accents: New England, New York, Delaware River Valley, Southern Coast (Southern), African American, Appalachians, and Midwest (Kim & Polan, 2018). Within these sections exists multiple accent variations, making the number of accents in the United States virtually countless (Kim & Polan, 2018). With so many accent variations, it is important to study the way they impact both the person who is speaking with the accent, as well as those who are listening to the speaker’s message. The current study aims to investigate how two American accents, Southern and Midwestern, impact listener perceptions and listener persuasion.

### **Accent Characteristics and Stereotypes**

A person’s accent has the ability to impact multiple aspects of their life, from perceived personality characteristics to their occupations. One way in which accents have affected the perceived personality characteristics of a speaker is through the speaker’s perceived level of trustworthiness. For example, native English speakers perceive statements to be less truthful when they are spoken by a nonnative speaker (Lev-Ari & Keysar, 2010), which affects not only the particular statement in question, but it could also impact the credibility of the individual as a consequence. The accent of an individual also may pose issues for their professional life. In the United States, individuals with a foreign accent are often underrepresented as characters on television, and when these individuals are represented in the media, they are demonstrated in a

less favorable light than those without a foreign accent (Dragojevic, Mastro, Giles, & Sink, 2016). More specifically, they are portrayed as being less attractive and less intelligent than their native counterparts. With the underrepresentation of foreign-accented individuals, it may be more difficult for a person with an accent to be able to become an actor. This is an important consideration when thinking about representation of different accents in other fields. Even if this individual is able to get a job in the field, they may be more likely to be perceived in an unfavorable light.

In more common fields, individuals with foreign accents still may face problems. Deprez-Sims and Morris (2010) found that, in job interviews in the United States, individuals with a French accent were “evaluated more negatively regarding suitability for the job” than a person with a Midwestern American accent (p. 423). This may be in part due to the fact that participants rated the French-accented speaker as less understandable than the Midwestern-accented speaker. In addition to difficulty obtaining a job, individuals with accents may face prejudice within their occupation. For example, individuals who spoke English with a Mexican accent were more likely to make a lower wage than individuals who did not have a foreign accent, regardless of proficiency in English (Dávila, Bohara, & Saenz, 1993).

Accent stereotypes exist not only across different countries, but also within a country. In a study conducted in Germany using various German accents, speakers who spoke with a regional accent were considered not only less competent, but also less hireable (Rakic, Steffens & Mummendey, 2011). In Ireland, as well, regional accent discrimination occurs at various levels. Edwards (1977) found that a Donegal accent in Ireland was considered more favorable by a diverse group of Irish secondary school students than the Cork, Cavan, Galway, and Dublin accents. While a Donegal accent was related to ambition and professionalism, the Dublin accent



was perceived to be more attractive, but the individual with this accent was deemed as having less personal integrity. Cork, Cavan, and Galway were perceived as being average.

Even in the United States, segregation exists based on accent variation according to various geographical regions of the country. Two United States accents in particular have varying effects on listener perceptions: Midwestern and Southern accents. While Midwestern accents are typically located in central western states such as Illinois, Pennsylvania, and Indiana, Southern accents can typically be found in Southwestern regions of the United States, such as Kentucky, Georgia, and Mississippi (Labov, Ash, & Boberg, n.d.). According to Milroy (2001), Midwestern accents are often considered as the Standard American accent due to a lack of stigmatization (Maye, Aslin, & Tanenhaus, 2007). According to Clopper and Pisoni (2004), some characteristics that separate a Southern accent from others are that Southern accents tend to lengthen and centralize vowels and utilize voiced fricatives in words such as ‘greazy’ instead of ‘greasy.’

In addition to linguistic variations in speech, the Southern accent has been studied in regard to various stereotypes and listener perceptions. Boucher, Hammock, McLaughlin, and Henry (2013) examined perceptions of an audience on various characteristics of non-Southerners in comparison to Southerners. Even though the study took place at a Southeastern university where 83% of participants identified as Southern, the Southern speaker was perceived as less grammatically correct, less effective regarding instruction, less professional, less articulate, and less sophisticated than their non-Southern counterpart when giving a speech (Boucher et al., 2013). These stereotypes were apparent despite the fact that the speech was the exact same, including the dialect used. To elaborate, both the Southern and non-Southern accent said “you” instead of “y’all” in their speeches, although “y’all” is the more common form in the Southern

dialect (Boucher et al., 2013, p. 30). In another study by Heaton and Nygaard (2011), speakers with a Southern accent were rated by participants as more amusing, polite, friendly, cheerful, sociable, and nice when compared to a speaker with a standard (Ohio) accent. In contrast, participants rated the speaker with a standard accent as more intelligent, arrogant, smart, educated, and as having better English than their Southern counterpart (Heaton & Nygaard, 2011). In addition to being rated as having higher sociability characteristics, individuals with a Southern accent were also rated lower in regard to status than their standard-accented counterpart when reading. On average, the Standard accent was rated more intelligent than the Southern accent. While the standard-accented speaker was rated as higher than the Southern accented speaker on social characteristics when reading a passage that described stereotypical Southern activities (hunting, cooking), the likability of the Southern accent did not depend on the topic of conversation (Heaton & Nygaard, 2011). This is an important effect to take note of, because it demonstrates that, in regard to perceptions of status, Southern speakers are judged more on the way they talk, instead of the activity that they talk about.

Similar to discrimination in regard to foreign accents, individuals with nonstandard American accents also face issues in regard to representation. While individuals with a standard, or Midwestern, accent make up 84.3% of television characters, individuals with a nonstandard American accent only make up 6.5% (Dragojevic et al., 2016). According to the U.S. Census Bureau (as cited in Dragojevic et al., 2016) this is a large underrepresentation of the population as a whole, which can be estimated at about 37% of the United States population.

### **Factors in Persuasion**

Persuasion can be influenced by more than just the words that an individual speaks. For example, the speed at which an individual speaks can affect the persuasiveness of their message.

In a study by Miller, Maruyama, Beaber, and Valone (1976), an individual's speed of communication was studied to determine its influence on persuasiveness. They found that individuals who spoke faster were more persuasive than those who spoke with a slow speech rate. This finding could be due to "increasing the effort required to process and comprehend the speech content adequately" (Miller et al., 1976, p. 622). Speech rate can also affect an individual's ability to be persuaded to a counter-attitudinal, or opposing, message. Smith and Shaffer (1991) had a speaker argue that the legal drinking age either should continue to be 21 or should be lower than 21, and then assessed listener beliefs about one of the arguments. They found that a faster-than-normal speech rate was only effective when the argument supported the current drinking age requirement, which was considered counter-attitudinal. This is perceived to be due to a listener's inability to rebut the message at hand. Contrary to Miller et al. (1976), Smith and Shaffer (1991) found that, if the speaker's argument supported a younger drinking age, or supported the popular beliefs, a faster speech rate was less effective in persuasion because the message became more unclear to the listener.

Two other important factors of persuasion are perceived warmth and competence of the speaker (Fisk, Cuddy, & Glick, 2007). For the purpose of the current study, warmth is defined through characteristics such as trustworthiness and agreeableness, while competence is defined through characteristics such as credibility and intelligence. Firstly, warmth is related to persuasiveness: people are found to be more persuasive when the audience believes that their voice sounds both warm and pleasant than when the voice sounds stiff (Hall, 1980). Competence is also related to persuasion in various ways. In general, a more competent source is more persuasive than a less competent source (Cook, 1969). Additionally, the level of competence is an important factor to consider in regard to persuasion. For example, speakers who are perceived

as moderately credible are more persuasive than speakers who are highly credible when the listener's opinion is in line with the argument and when the speaker was identified before giving the speech (Sternthal, Dholakia, & Leavitt, 1978). When listeners' opinions are not in line with the argument, highly credible sources were more likely to generate agreement with the issue than the less credible sources. While both warmth and credibility are related to persuasion, they are not equally correlated. McGinnies and Ward (1980) conducted a study to determine the effects of both trustworthiness (agreeableness) and expertise (competence) on students in America, Japan, New Zealand, and Australia. Across all countries, individuals who were trustworthy but not experts were found more persuasive than untrustworthy experts. That being said, the speaker who was considered both trustworthy and an expert was the most persuasive in the United States and New Zealand, while "...the trustworthy source was more effective regardless of whether it was paired with high or low expertise" in both Australia and Japan (McGinnies & Ward, 1980, p. 470).

Accent also affects an individual's persuasiveness. A study conducted by DeShields, Kara, and Kaynak (1996) analyzed the effects of a salesperson's accent on their ability to "have a more positive impact on the purchase intentions of consumers in that society," and they found that a salesperson with a standard accent, or an accent that was considered more mainstream in a community, was more likely to achieve this positive impact than a salesperson with a foreign accent (p. 99). More specifically, in a university community in Miami, individuals with an American accent were more likely than individuals with a Cuban or Nicaraguan-American-accent to positively influence a consumer's intent to purchase. These findings may be due to a listener's belief that the standard-accented individual belongs to the mainstream community, while the foreign-accented individual does not (DeShields et al., 1996).

## **Ingroup and Outgroup Behavior**

How an individual perceives those around them can be influenced by multiple factors, one of which being an ingroup versus outgroup bias. In general, people often perceive members of their own group (their “ingroup”) more favorably than members outside of that group (their “outgroup”; see Brewer, 1999). These biases can extend across many types of ingroups and outgroups, including ethnicity, gender, political party, etc. (Levin, van Laar, & Sidanius, 2003).

The level of ingroup bias that a person experiences may depend on various factors. For example, level of ingroup bias can depend on the ingroup’s status; lower-status groups have a weaker ingroup bias than higher status groups (Dasgupta, 2004). Also, individuals who are more exposed to outgroup members may have less ingroup bias. For example, college “students who had more outgroup friends in Years 2-3 were less biased in favor of their ethnic group at the end of their fourth year” (Levin et al., 2003, p. 85). Another determinant of the severity of ingroup bias is the level of perceived threat that the outgroup member poses to the individuals in the ingroup. For example, students who perceive an outgroup to threaten their ingroup economically or politically are more likely to have negative attitudes toward that outgroup (Stephan et al., 2002, p. 1252). Also, if the outgroup member “challenges central values and beliefs of their group,” the ingroup member is more likely hold negative attitudes toward them (Stephan et al., 2002, p. 1252).

Ingroup and outgroup bias can also impact individuals with different accents. From an early age, children are more likely to trust individuals who speak with their native accent rather than a foreign one (Kinzler, Corriveau, & Harris, 2010). Even when the words that an individual speaks are nonsensical, young children (aged 4-5 years) are more inclined to believe that the speaker with the native accent is speaking the truth (Kinzler et al., 2010). This discrepancy could

be due to a variety of reasons. For example, children may be predisposed to believe a native accent over a foreign one because the native speaker may be seen as more culturally knowledgeable (Kinzler et al., 2010). Accent bias may be an even stronger indicator than other group identities in children. For example, when given the opportunity to be friends with either a white child who spoke with a foreign accent or a black child who spoke with a native accent, a group of white children were more likely to prefer to be friends with the native-accented individual (Kinzler, Shutts, DeJesus, & Spelke, 2009).

This preference for ingroup native-accented speakers over outgroup nonnative-accented speakers can be seen in adults, as well. For example, people perceive statements to be less truthful when spoken by a nonnative speaker (Lev-Ari & Keysar, 2010). This bias affects not only the particular statement in question, but also the credibility of the individual (Lev-Ari & Keysar, 2010).

Additionally, ingroup bias can affect persuasion. For example, when reading a transcript from either an ingroup or an outgroup member, individuals are more likely to change their attitude in favor of the strong ingroup message than the strong outgroup message, even when the messages are the same (Mackie, Worth, & Asuncion, 1990). When the message is weak, however, there are no differences in ingroup and outgroup persuasiveness.

### **Current Study**

Research on both Southern and Midwestern accents in regard to persuasion is scarce, but the existing evidence pertaining to accents and stereotypes, personality characteristics, and ingroup and outgroup biases point to competing hypotheses for the role of Southern versus Midwestern accent in persuasion.

First, relevant stereotypes may make either a Southern or a Midwestern speaker more persuasive. While individuals who have a Southern accent are rated as less professional, articulate, sophisticated, and grammatically correct than non-Southern speakers, they are also rated as more polite, friendly, and sociable (Boucher et al., 2013; Heaton & Nygaard, 2011). Since perceived warmth of a speaker can have a stronger influence on persuasion than perceived competency (McGinnies & Ward, 1980), Southern speakers may have an advantage over Midwestern speakers when it comes to persuasion. On the other hand, if competence is more important (Sternthal, Dholakia, & Leavitt, 1978), then the Midwestern speaker may be more persuasive.

Second, ingroup biases point to a different process altogether. That is, in children, as well as adults, individuals are more likely to perceive a non-native accent as less truthful when compared to a native accent (Kinzler et al., 2010; Lev-Ari & Keysar, 2010), and ingroups tend to be more persuasive overall (Lev-Ari & Keysar, 2010). For this reason, a Southern accent may be rated as less truthful when it is the non-native accent of the region, such as in the Midwest. Therefore, a Midwestern accent may be more persuasive to Midwesterners and a Southern accent may be more persuasive to Southerners, regardless of more general warmth and competence stereotypes (Boucher et al., 2013).

The full scope of this new research question is beyond the means of a single study, so the current study aimed to expand upon past literature specifically through analyzing the effect of perceived warmth and competence of Southern and Midwestern accents on persuasion, as well as understand the influence of ingroup bias on an individual's ability to be persuaded. In order to analyze these characteristics, mostly Midwestern participants were asked to listen to an audio recording of a fictitious backpack review in either a Midwestern or Southern accent. Then, they

were asked to rate the speaker on characteristics of warmth and competence. To assess persuasion, participants were asked to rate the backpack on bipolar scales such as *good-bad* and *useful-useless*. They were also asked to answer questions on purchase intentions. I hypothesize that when the speaker has a Southern accent (vs. Midwestern), he will be rated as warmer in regard to personality, but when the speaker has a Midwestern (vs. Southern) accent, he will be rated as more competent. I also hypothesize that Southern accents and Midwestern accents will differ in levels of audience persuasion. If competence is a more important factor in persuasion, then the Midwestern accent will be more persuasive than the Southern one. If warmth is a more important factor in persuasion, then the Southern accent will be more persuasive than the Midwestern one.

## **Method**

### **Participants**

Participants were Ball State University undergraduate students aged 18-55 years. Complete data were available for 66 participants. Most of the participants were female (81.82%), followed by male (13.64%), and 1.52% of participants were non-binary and non-binary/genderqueer. One participant (1.52%) preferred not to answer the gender question. Most of the participants were white (83.33%), followed by black/African American (9.09%), white with Hispanic or Latino origin (3.03%), Asian (1.51%), and black with Hispanic or Latino origin (1.51%). One participant (1.51%) did not respond to the ethnicity question. Most of participants were Midwestern (86.36%), followed by Southern (4.55%), other (6.06%), Midwestern and other (1.52%), and Northern (1.52%). Participants were recruited through campus-wide emails from the Ball State communications center, and there was no compensation for participation.



## Materials

**Independent variable.** Participants were asked to listen to an audio-recorded message about a backpack review in either a Southern or a Midwestern accent, depending on random assignment. The speaker for both conditions was the same Ball State theater student, and he read the same script in both conditions (see Appendix B for the complete script). The final audio recordings were exactly two minutes long in each condition. At the same time, participants viewed an image that showed some of the features of the backpack (see Appendix C for the backpack image). The photograph displayed to participants was from Amazon Basics; however, any branding on the backpack was masked. The backpack was instead given a fake name (“Discovery Brand”), in order to avoid the influence of pre-existing brand attitudes. It was a black, two-strap backpack with one main compartment and a smaller compartment in the front. It also had two water bottle holders, one on each side.

**Dependent variables.** After viewing the image and listening to the message, participants were asked to complete questions regarding perceptions of warmth and competence of the speaker, attitudes about the backpack, and purchase intentions. Then, participants were asked to identify the identity of the speaker (Northern, Midwestern, or Southern).

***Measures of warmth and competence.*** Participants were asked to rate the speaker on warmth and competence using questions from a questionnaire created by Aragonés, Poggio, Sevillano, Pérez-López, and Sánchez-Bernardos (2015). In order to assess warmth, participants were asked to rate the speaker on the following traits: kind, pleasant, friendly, and warm using a 5-point Likert scale (1 = *not at all* to 5 = *extremely*). These four items showed good internal reliability in this sample ( $\alpha = .84$ ), so I averaged responses to these questions to form an index of perceived warmth. To assess competence, participants were asked how much the speaker

exhibits the following traits: competent, effective, skilled, and intelligent on a 5-point Likert scale (1 = *not at all* to 5 = *extremely*). These four items showed good internal reliability in this sample ( $\alpha = .91$ ), so I averaged responses to these questions to form an index of perceived competence. See Appendix D for a complete list of survey questions regarding warmth and competence.

***Persuasion.*** Participants were asked to rate the backpack on five semantic differential scales: *bad-good*, *negative-positive*, *dislike-like*, *useless-useful*, and *undesirable-desirable* (Osgood, Suci, & Tannenbaum, 1957). These items showed good internal reliability in this sample ( $\alpha = .96$ ), so I averaged responses to these questions to form an index of product attitudes. See Appendix F for the complete semantic differential scale. In addition to product attitudes, three questions adapted from Spears and Singh (2004) were used to measure participants' intentions to purchase the product discussed in the audio message (see Appendix E for a complete list of survey questions regarding purchase intentions). Participants were asked to rate the extent that they intended to buy the backpack in the future and how likely they were to buy the backpack in the future on a 5-point Likert scale (1 = *definitely will not* to 5 = *definitely will*). They were also asked how interested they were in purchasing the backpack on a 5-point Likert scale (1 = *very low interest* to 5 = *very high interest*). These three items showed good internal reliability in this sample ( $\alpha = .85$ ), so I averaged responses to these questions to form an index of purchase intentions.

## **Procedure**

An email was sent out to all Ball State students asking them to participate in a survey on evaluations of audio messages. Participants were randomly assigned to listen to a hypothetical two-minute backpack review delivered by a speaker using either a Southern or a Midwestern

accent (the audio link for the Midwestern review can be found at <https://soundcloud.com/user-472298/midwestern-1-final-1mp3/s-hkq6e>; the audio link for the Southern review can be found at <https://soundcloud.com/user-472298/southern-3-final-mp3-1/s-rHvvU>). After opening the link for the survey and agreeing to the informed consent (see Appendix A for the complete informed consent document), participants were asked to put in headphones and listen to a short recording of a sentence and report back what was said, in order to check for audio issues (the audio link for the test review can be found at <https://soundcloud.com/user-472298/test-final-mp3/s-uJMo2>). Then, they listened to a two-minute audio recording of a backpack review. During this time, they were also shown an image of the backpack in order to show some of its features. Participants were only allowed to move ahead in the survey after the review was finished playing. After hearing the review, participants were asked to rate the speaker on traits pertaining to warmth and competence characteristics. These characteristics were counterbalanced, meaning that half of the participants rated warmth characteristics first, followed by competence characteristics. The other half of participants rated competence characteristics first, followed by warmth characteristics. After rating both warmth and competence characteristics, participants were asked to rate the backpack on five semantic differential scales, followed by purchase intentions. Participants were then asked to indicate which identity they believe that the speaker had (Southern, Midwestern, or Northern). Lastly, participants were asked demographic questions regarding age, gender, ethnicity, and which geographical identity they relate with themselves (Southern, Midwestern, Northern, or Other) (see Appendix G for a complete list of demographic questions). After completing the survey, they submitted it and were thanked for their time.

## **Results**

### **Preliminary Results**

Eighty-seven participants agreed to the informed consent. Of those 87 participants, 66 participants completed the survey in its entirety. All participants who completed the survey in its entirety were included in data analysis.

To confirm that participants were able to hear the audio recording, they were asked to listen to a short audio clip of a speaker saying “ABC.” Then, they were asked what had been spoken in the clip and were given possible answers. All participants correctly answered “ABC,” which indicated that they were able to hear the audio recording.

A second manipulation check was performed to confirm that participants could identify the correct regional accent according to their condition. From the 34 participants in the Southern condition, 82.35% reported that the speaker was Southern according to the accent that they heard; however, 17.65% of participants in this condition said that the speaker was Midwestern. From the 32 participants in the Midwestern condition, 81.25% of participants correctly guessed that the speaker was Midwestern according to his accent; however, 18.75% of participants had guessed that the speaker was Northern. To maximize statistical power, all participants are included in the analyses below; however, if I restrict the analysis to participants who answered correctly, the significance of the results does not change.

### **Hypothesis Testing**

The first hypothesis tested was that a speaker who used a Southern accent would be rated as warmer than a speaker who used a Midwestern accent. To compare overall warmth ratings of the Southern speaker to overall warmth ratings of the Midwestern speaker, an independent samples t-test was performed. The t-test was not significant  $t(66) = 0.08, p = 0.94$ . On average,

the Southern speaker ( $M = 3.95$ ,  $SD = 0.67$ ) was not rated as warmer than the Midwestern speaker ( $M = 3.96$ ,  $SD = 0.66$ ). Results showed that Southern accents are not perceived to be warmer than Midwestern accents.

The second hypothesis was that a speaker who used a Midwestern accent would be rated as more competent than a speaker who used a Southern accent. To compare overall competence ratings of the Midwestern speaker to overall competence ratings of the Southern speaker, an independent samples t-test was performed. The t-test was significant  $t(66) = 2.11$ ,  $p = 0.04$ . On average, the Midwestern speaker ( $M = 4.06$ ,  $SD = 0.83$ ) was rated as more competent than the Southern speaker ( $M = 3.65$ ,  $SD = 0.75$ ).

The next hypothesis was that the Southern accent and Midwestern accent would differ in levels of audience persuasion. If competence was the more important factor in persuasion, then the message spoken with a Midwestern accent will be more persuasive than the one spoken with a Southern accent. I also predicted that if warmth is the more important factor in persuasion, then the Southern accent will be more persuasive than the Midwestern accent; however, because accent did not affect perceived warmth, it is unlikely that the Southern accent would be more persuasive in this study (even if warmth is an important persuasion variable).

Two dependent variables were used to test persuasion: attitudes toward the backpack and purchase intention regarding the backpack. First, results of an independent samples t-test on participants' ratings of the backpack showed that ratings of the backpack did not significantly differ between the Southern accent ( $M = 8.25$ ,  $SD = 0.27$ ) and Midwestern accent ( $M = 8.98$ ,  $SD = 2.33$ ) conditions,  $t(66) = 1.12$ ,  $p = 0.28$ . The results showed that speaker accent did not have an effect on participant attitudes.

Second, results of an independent samples t-test on participants' intentions to purchase the backpack showed that purchase intentions did not significantly differ between the Southern accent ( $M = 3.35$ ,  $SD = 1.06$ ) and Midwestern accent ( $M = 3.42$ ,  $SD = 0.80$ ) conditions,  $t(66) = 0.27$ ,  $p = 0.79$ . The results showed that speaker accent did not have an effect on participant purchase intentions.

### Exploratory Analyses

To investigate the relationship between warmth, intelligence, attitude, and intention, Pearson's correlation coefficients were computed. All variables were positively correlated and significant. Table 1 provides a complete summary of these results. While predictions regarding accent and persuasion were not supported, results indicate that warmth and competence are positively and significantly correlated with persuasion.

Table 1. Summary statistics and Correlations

	<i>M (SD)</i>	Warmth	Competence	Attitudes	Intentions
1. Warmth	3.95 (0.66)	--	0.613***	0.329**	0.465***
2. Competence	3.85 (0.81)	--	--	0.414***	0.480***
3. Attitudes	8.60 (2.67)	--	--	--	0.332**
4. Purchase Intentions	3.38 (0.94)	--	--	--	--

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Discussion

Different perceptions and stereotypes surrounding regional accents exist in the United States. Two accents in particular, Midwestern and Southern, are viewed as having distinct characteristics by listeners: Southern accents are characterized as more amusing, polite, friendly,

cheerful, sociable, and nice, while Midwestern accents are perceived as more intelligent, arrogant, smart, educated, and as having better English when rated by listeners (Heaton & Nygaard, 2011).

In addition to stereotypes and perceptions regarding accent variation, previous research has demonstrated that warmth and competence characteristics can impact the persuasiveness of a speaker's message, although the impact of these traits are mixed. First, individuals with a warm voice, which is defined by the current study as demonstrating characteristics such as trustworthiness and agreeableness, are rated as more persuasive than voices that sound stiff (Hall, 1980). Additionally, individuals who are perceived as highly credible, which is defined by the current study as demonstrating characteristics such as credibility and intelligence, are considered more persuasive than individuals with perceived moderate credibility when the argument is not in-line with listeners' opinions (Sternthal, Dholakia, & Leavitt, 1978). Ingroup and outgroup bias can also impact a speaker's persuasiveness. When a speaker is considered to be a member of the ingroup, they are more persuasive than an outgroup speaker (Mackie, Worth, & Asuncion, 1990).

The current study aimed to contribute to research on accent variations and stereotypes in the United States. Considering that Southern speakers are perceived as warmer, while Midwestern speakers are perceived as more competent, the current study also aimed to contribute to existing research by investigating the effects of these perceived accent characteristics on persuasion while specifically looking at a mostly Midwestern audience, as well as attempt to understand possible ingroup bias in regard to accents.

Results supported the influence of accents on perceived competence. This result replicated Heaton and Nygaard (2011) in that when the speaker used a Midwestern accent, he

was rated as more competent than when he used a Southern accent. Inconsistent with prior research, however, results failed to support a relationship between Southern accent and warmth. Participants did not rate the speaker any warmer when he used a Southern versus a Midwestern accent.

A possible reason why I did not find support for an influence of accents on perceived warmth could be ingroup bias. Most of the participants were Midwestern, and the university from which the sample was taken is in a Midwestern state. For this reason, when the speaker used the Midwestern accent, he may have been perceived as being warmer as a positive effect of ingroup bias. Similarly, when the speaker used a Southern accent, he could have been perceived as less warm than anticipated due to a negative effect of outgroup bias. While the typical Southern stereotypes may have made the speaker who used the Southern accent seem warmer, ingroup biases favoring the Midwestern accent may have made the speaker who used the Southern accent seem less warm. These competing effects may have canceled each other out, resulting in no overall preference between groups. Ingroup bias may also account for the higher rating of competence in regard to the speaker who used the Midwestern accent. To elaborate, it was likely to see pro-Midwestern accent ratings on competence because of the combined effects of Midwestern competence stereotypes and ingroup bias.

Despite some effects on competence, results failed to support an effect of speaker accent on persuasion. Participants in the Midwestern condition did not like the backpack or intend to purchase it any more than participants in the Southern condition. Nevertheless, both warmth and competence were positively correlated with persuasion, which shows that higher perceptions of warmth and competence indicate higher persuasiveness of the speaker.



The elaboration likelihood model may help explain why I did not find support for an influence of accent on persuasion. According to the elaboration likelihood model, the amount of thought the listener puts toward the persuasive message affects their focus on the actual content of the message (Cacioppo & Petty, 1979). The more a listener focuses on the issue, rather than other factors such as, in the case of the current study, accent, the more likely they are to be persuaded solely by the content (Cacioppo & Petty, 1979). In the current study, participants may have focused more on the content of the backpack review, which may have led to a lack of focus on the speaker's accent. The content of the message was the same in each condition, so if participants did pay more attention to the message than the speaker's accent, then they would be more likely to have similar ratings in each condition according to this theory.

### **Implications**

Participants rated the Midwestern speaker as more competent than the Southern speaker. Outside of persuasion, it is especially important for individuals in authority positions to be aware of this bias because it could negatively impact hiring processes and produce hiring discrimination. Therefore, when it comes to hiring or media representation, it may be beneficial to have training to promote a welcoming and accepting work environment for individuals who have different accents.

In addition, if Midwestern accents are considered more competent than Southern accents, then this could negatively impact how each accent is represented in the media. For example, Midwestern-accented speakers may be cast in more competent roles, which could perpetuate the stereotype. For that reason, it may be beneficial to have similar training to reduce this bias.

## **Problems and Limitations**

One limitation of this study is the small sample size. Sixty-six participants completed the survey: 34 participants were in the Southern condition and 32 participants were in the Midwestern condition. While there were enough participants to analyze the results, there may not have been enough to find evidence for an influence of speaker accent on persuasion. Another limitation of this study was the object used for the product review. While I had chosen a backpack because it is something that students typically use and care about, it is possible that participants did not have any interest in the product. For example, since this study took place at the start of the second semester, most participants may have already had a backpack, leading to lower interest in the product. A lack of interest in a new backpack could have affected persuasion because their interest may have not been changed by the speaker's message or the accent that was used. Also, it is difficult to note if the same results would have occurred if participants listened to a review of a different product.

## **Future Research**

Future research should test these hypotheses in a university where there is a more equal number of Southern and Midwestern students. The current study took place at a Midwestern school, and most of the participants considered themselves to be Midwestern. This may have been a factor in the higher ratings of competence for the speaker who used the Midwestern accent, as well as the similar ratings of warmth between the Southern and Midwestern condition. Individuals who identify as Southern or go to a Southern university may perceive the speaker in the Southern condition as warmer or the speaker in the Midwestern condition as less competent. Testing these hypotheses at a Southern university could also add to existing research on ingroup bias, because it could look at the possible influence of ingroup bias of the Southern participants.

In addition, future research may want to replicate the study using a warmer object, such as a teddy bear. Warmer objects may impact both the level of warmth and the level of competence in both conditions, which could affect how participants rate the object. For example, a Southern speaker may be able to demonstrate more characteristics of warmth if they are able to discuss a stereotypically warm object. Lastly, future research could have a female speaker for both the Southern and Midwestern condition. Similar to the difference in the object, participants may view the female speaker in a different way than a male speaker, which could impact both the perception of characteristics as well as speaker persuasiveness.

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## Appendix A

### Informed Consent

#### **Study Title**

Audience Evaluations of Audio Messages  
IRB Reference Number: 1356227-1

#### **Study Purpose and Rationale**

The purpose of this study is to assess the various ways in which you perceive a speaker based on auditory messages and how that message affects decision-making. Since speech can have influence the way in which you listen to and understand messages, it is important to be made aware of these effects.

#### **Inclusion/Exclusion Criteria**

To be eligible to participate in this study, individuals must be at least 18 years of age or older and be able to listen to an audio recording.

#### **Participation Procedures and Duration**

For this survey, you will be answering questions on a speaker's perceived personality characteristics. You will listen to a fictitious product review of a backpack, then rate the speaker on various dimensions, as well as rate the backpack that was reviewed. Participation in this study will take approximately 10 minutes.

#### **Data Confidentiality or Anonymity**

All data will be maintained as anonymous and no identifying information such as names will appear in any publication or presentation of the data.

#### **Storage of Data and Data Retention Period**

Raw data will be kept for two years after data collection and final data will be kept for two years after data collection. This information will be stored on a password-protected computer.

#### **Risks or Discomforts**

There are no perceived risks for participating in this study.

#### **Who to Contact Should You Experience Any Negative Effects from Participating in this Study**

If you should experience any negative effects from participating in this study and need any medical or counseling services, please contact the Ball State University Counseling Center, located on Ball State University's campus in Lucina Hall, room 320.

Hours: 8 a.m. to 5 p.m., Monday through Friday  
Phone number: 765-285-1736.

### **Voluntary Participation**

Your participation in this study is completely voluntary and you are free to withdraw your permission at any time for any reason without penalty or prejudice from the investigator. Please feel free to contact the investigator with any questions before signing this form and at any time during the study.

### **IRB Contact Information**

For one's rights as a research subject, you may contact the following: For questions about your rights as a research subject, please contact the Director, Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-5070 or at [irb@bsu.edu](mailto:irb@bsu.edu).

\*\*\*\*\*

### **Consent**

By clicking yes and entering the survey, I agree to participate in this research project entitled, Audience Evaluations of Audio Messages. I have had the study explained to me and my questions have been answered to my satisfaction. I have read the description of this project and give my consent to participate. I understand that I will receive a copy of this informed consent form to keep for future reference.

To the best of my knowledge, I meet the inclusion/exclusion criteria for participation (described on the previous page) in this study.

### **Researcher Contact Information**

Principal Investigator:

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By selecting yes to this statement, I certify that I am 18 years old or older and that I voluntarily agree to participate in this survey.

- ☐ Yes
- ☐ No

## Appendix B

### Participant Audio Test and Backpack Review Script

At this time, please put on your headphones and listen to this brief audio clip.

*[Note: The audio clip participants will hear at this point will be a male voice saying: “ABC”]*

What sentence does this audio clip say?

- ABC
- LMN
- ZYX

Now, listen to this audio clip and take a look at the accompanying image.

*[Note: The audio clip participants will hear at this point will be a male voice speaking in either a Midwestern or Southern accent. The following is a transcript of the audio presentation.]*

Hello, everybody. Today I am going to tell you about the Discovery Brand backpack that I just recently purchased. I was a little skeptical at first because it was a pretty cheap bag. After having it for over a couple of months now, I can confidently say that it's functional. Being a student, I didn't want to have to drive home three times a day to grab everything. I needed to find a bag that could fit my entire day's materials in it without feeling too bulky and in-the-way. Let me tell you, this bag does just that. It has three total compartments. This first one is large enough to fit a decently-sized pencil pouch, notecards, and a calculator. The little compartment inside the main one can hold a small book or a tablet, while the bigger compartment can fit my 13-inch laptop, my books for the day, and my binder with no problem. There's also a pocket on each side of the bag. I personally like to put my keys on one side and my water bottle on the other, but you can put whatever you like in it. The padded straps also make it pretty comfortable, and it's not too heavy to lug around. While I went for the plain black bag, you could also buy it in gray, navy, royal blue, white, or aqua. I honestly can't say anything negative about this bag. In my opinion, it's a great deal.

## Appendix C

## Backpack Image



## Appendix D

## Ratings of Competence and Warmth

(Warmth) Please rate the speaker on the following variables

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)
Kind (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pleasant (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friendly (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warm (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Competence) Please rate the speaker on the following variables

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)
Competent (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skilled (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligent (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Appendix E

### Purchase Intentions Questions

To what extent do you intend to buy this backpack in the future?

- ☐ Definitely will not
- ☐ Will not
- ☐ Maybe
- ☐ Probably will
- ☐ Definitely will

How interested are you in purchasing this backpack?

- ☐ Very low interest
- ☐ Low interest
- ☐ Neutral
- ☐ High interest
- ☐ Very high interest

How likely are you to buy this backpack in the future?

- ☐ Definitely will not
- ☐ Probably will not
- ☐ Might or might not
- ☐ Probably will
- ☐ Definitely will

## Appendix F

### Semantic Differential

[illegible]



## Appendix G

## Demographic Questions

What is your age (in years)?

---

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Prefer to self describe \_\_\_\_\_
- ☐ Prefer not to say

Are you of Hispanic, Latino, or of Spanish origin?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

How would you describe yourself? (select all that apply)

- ☐ American Indian or Alaskan Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Prefer not to say

Which of the following do you consider to be a part of your identity? (select all that apply)

- ☐ Southern
- ☐ Midwestern
- ☐ Northern
- ☐ Other \_\_\_\_\_

Which of the following identities do you consider the speaker to be? (select all that apply)

- ☐ Southern
- ☐ Midwestern
- ☐ Northern
- ☐ Other \_\_\_\_\_



Office of Research Integrity  
 Institutional Review Board (IRB)  
 2000 University Avenue  
 Muncie, IN 47306-0155  
 Phone: 765-285-5070

DATE: January 2, 2019

TO: Jessica Beaver

FROM: Ball State University IRB

RE: IRB protocol # 1356227-1

TITLE: Audience Evaluations of Audio Messages

SUBMISSION TYPE: New Project

ACTION: APPROVED

DECISION DATE: January 2, 2019

REVIEW TYPE: **EXEMPT**

The Institutional Review Board reviewed your protocol on January 2, 2019 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

**Exempt Categories:**

	<b>Category 1:</b> Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
X	<b>Category 2:</b> Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior
	<b>Category 3:</b> Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
	<b>Category 4:</b> Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

	<b>Category 5:</b> Research and demonstration projects which are conducted by or subject to the approval of Department or agency heads, and which are designed to study, evaluate or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in methods or levels of payment for benefits or services under these programs.
	<b>Category 6:</b> Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed which contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact (ORI Staff) if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

**Reminder:** Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.



D. Clark Dickin, PhD/Chair  
Institutional Review Board



Christopher Mangelli, JD, MS, MEd, CIP/  
Director  
Office of Research Integrity

## Digital Supplements

### Audio Test File and Backpack Review for Midwestern and Southern Condition

Test File: <https://soundcloud.com/user-472298/test-final-mp3/s-uJMo2>

Midwestern Backpack Review: <https://soundcloud.com/user-472298/midwestern-1-final-1mp3/s-hkq6e>

Southern Backpack Review: <https://soundcloud.com/user-472298/southern-3-final-mp3-1/s-rHvvU>